

### REMARKS

#### Status of the Claims

Claims 1-21, and 23-39 are pending and claims 18, 20-21, 23-24, and 26-29 are under consideration in this application, claims 1-17, 19, 25, and 30-39 having been withdrawn for allegedly being drawn to separate inventions. All the claims under consideration stand rejected. After entry of the amendments made herein, claims 1-21 and 23-40 will be pending and claims 18, 20-21, 23-24, 26-29, and 40 will be under consideration, claim 40 having been added herein. Applicants respectfully request that new claim 40 be entered. Claim 40 merely specifies that, in the method of claim 18, the "subject suspected of having a cancer" has a cancer and would appear not to require a new search. Claim 40 is supported by the specification (e.g., at page 32, line 28, to page 33, line 2; and page 33, line 32, to page 34, line 3) and adds no new matter.

#### 35 U.S.C. § 112, second paragraph, rejection

The rejection of claims 18, 20, 21, 23, and 24 for allegedly being ambiguous is maintained.

From the comments on page 3, lines 5-11, of the Office Action, Applicants understand the Examiner's position to be that, because claim 18 does not state the purpose of the method in the preamble, it is ambiguous and unclear. Applicants respectfully disagree with this position. The steps performed in the method are entirely clear and unambiguous and any method, regardless of purpose, involving such steps would be covered by the claim. Nevertheless, in order to expedite prosecution of the instant application, Applicants have amended claim 18 to state a purpose for the claimed method. This amendment is supported throughout the specification, e.g., at page 32, line 8, to page 37, line 6.

In light of the above amendment, Applicants submit that the rejection under 35 U.S.C. § 112, second paragraph, is moot.

35 U.S.C. § 103(a) rejection

Claims 18, 20, 21, 23, and 26-29 stand rejected as allegedly being unpatentable over Vallera et al., in view of Neville et al. and further in view of Goldenberg et al. Applicants respectfully traverse this rejection.

From the comments on page 5, line 2, to page 8, line 15, of the Office Action, Applicants understand the Examiner's position to be that the combination of the cited references renders the above-listed claims obvious. In view of the lack of motivation in the cited references to combine their respective disclosures and thereby motivate one of ordinary skill in the art to perform the claimed method, Applicants respectfully disagree with this position.

Vallera et al. discloses the use of a radiolabeled immunotoxin to perform *in vivo* biodistribution studies in normal subjects (i.e., mice) and not in subjects with cancer as required by the instant claims (page 2345, column 1, paragraphs 3 and 4). Neville et al. discloses the use of a non-radiolabeled immunotoxin in mice bearing tumors (e.g., column 2, line 61, to column 3, line 10; column 11, line 62, to column 12, line 12). Neville et al. makes no mention or suggestion of using radiolabeled immunotoxins to treat subjects with tumors. While, Neville et al. does mention a radiolabeled immunotoxin, it is in the context of *in vitro* endocytosis studies only (e.g., column 23, line 51, to column 25, line 15). Thus, while both references refer to radiolabeled immunotoxins, neither discloses or even suggests administering them to subjects having, or suspected of having, a cancer.

The fact that both references not only address the issue of killing pathogenic cells (normal GVHD-mediating T cells in Vallera et al. and cancerous T cells in Neville et al.) with immunotoxins but also describe radiolabeled immunotoxins attests to the non-obviousness of the presently claimed method. Thus, while the authors of the references were concerned with the killing of cells, including cancer cells in the case of Neville et al., in appropriate subjects using standard non-radiolabeled immunotoxins and were, in addition, clearly familiar with radiolabeled immunotoxins, neither group of authors apparently considered administering radiolabeled immunotoxins to the subjects. Applicants submit that, had the latter procedure been obvious, at

least one of the authors of one of the references, all of whom are presumably at least ordinarily skilled in the art, would likely have considered performing it.

In light of the above considerations, Applicants submit that Vallera et al. and Neville et al., either singly or in combination, do not contain the necessary motivation to persuade one of ordinary skill in the art to administer a radiolabeled immunotoxin to a subject suspected of having cancer. Applicants respectfully submit that, since Goldenberg does not even mention cancer, let alone treating a subject suspected of having cancer with an immunotoxin of any sort (radiolabeled or not), it cannot remedy this deficit in Vallera et al. and Neville et al. Goldenberg is concerned only with “targeting a diagnostic or therapeutic agent to a focus of infection” (Abstract; emphasis added). Moreover, Goldenberg does not mention or even hint at a sFv antibody fragment, let alone constructing an immunotoxin containing a sFv antibody fragment and a toxin (with or without a radionuclide).

In light of the above factors, one of ordinary skill in the art would be not be persuaded by the disclosure of Goldenberg to combine its disclosure with that of Vallera et al. and/or Neville et al. and hence be motivated to administer a radiolabeled immunotoxin (in which the targeting domain is a sFv antibody fragment) to a subject having, or suspected of having, a cancer.

Moreover, in that neither Vallera et al. nor Neville et al. disclose or even suggest methods of diagnosing or treating infectious diseases, neither contains the requisite motivation for one of ordinary skill in the art to look to Goldenberg. Moreover, as indicated above, even if such an artisan were so motivated, Goldenberg does not contain what is lacking in Vallera et al. and Neville et al., i.e., the motivation to administer a radiolabeled immunotoxin to a subject having, or suspected of having, a cancer.

In light of the above considerations, Applicants respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Applicant : Daniel A. Vallera et al.  
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CONCLUSION

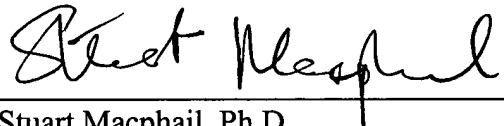
In summary, for the reasons set forth above, Applicants maintain that the pending claims patentably define the invention. Applicants request that the Examiner reconsider the rejections as set forth in the Office Action, and permit the pending claims to pass to allowance.

If the Examiner would like to discuss any of the issues raised in the Office Action, Applicants' undersigned representative can be reached at the telephone number listed below.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 09531-023001.

Respectfully submitted,

Date: 4/15/04



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